



The Sustainable Pioneer

http://www.nrel.gov/sustainable_nrel/

April/May 2006

Science and Technology Facility –A Model for Sustainability

The Science and Technology Facility (S&TF) is currently under construction with a completion timeframe between May and June of this year. What you may not know about are some of the sustainability elements that are included in this state of the art facility. The S&TF building plans followed guidance from both the US Green Building Council and EPA's Labs for the 21st Century programs. It is on track to be awarded a LEED's Gold rating from the U.S. Green Building Council and will exceed ASHRAE 90.1-1999 requirements for energy efficiency by 38%. In addition to the significant energy efficiency measures in the building, other sustainable elements are included, from the types of construction materials used to the effective use of daylighting. For example, to date, the construction contractor has recycled 63% of all construction waste. It is expected that this percentage will increase to 75% by the end of the project. Another interesting point is that at least 20% of the building materials will come from areas within a 500 mile radius to cut down on pollution from transportation sources.

Internal features of the building include CO² monitors that will detect when the CO² levels inside the building exceed external levels by more than 530ppm and there will be no use of CFC-based refrigerants in the heating, refrigeration and air conditioning systems of the building. Low VOC-emitting paints and carpets will also be used.

The actual site of the S&TF was also taken into account. Natural resources around the area were kept intact and the building is within a half mile of a public transportation route. The building has an east-west orientation and the office area was designed to maximize daylighting, enabling office spaces to have 100% ambient light throughout most of the day. In addition, since water is always an issue in Colorado, the S&TF was designed to capture and use storm water for irrigation purposes.

The Science and Technology Facility proves that sustainability and functionality can co-exist. The features of this building are innovative while still being cost-effective.

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***The NREL Science and
Technology Facility is located
by the SERF on the main
campus. It is approximately
71,000 square feet.***



Hey, What's Going on in Building 16?

Just in case you're one of the few who don't know, the Peaberry Coffee Cart is now open on the first floor of building 16. From a sustainability standpoint, we are very excited. This is a great way to get a snack, coffee or lunch without having to drive to the nearest shopping centers. The café is open Monday through Friday from 7:00AM to 1:30PM. It serves different kinds of coffee and other beverages, light breakfast foods and lunch items. Please keep in mind that only cash is accepted but there is an ATM machine on the second floor of building 17, so you don't even have to drive for that!

While you're taking time to grab a drink or snack, you can go to the Reusable Office Supply Depot on the fourth floor of building 16. Feel free to take any office supplies that you need from the Depot. You can also drop off any new or "good as new" items. This is a great opportunity for your centers to save money and help the environment by reusing those office supplies that would ordinarily be land-filled.



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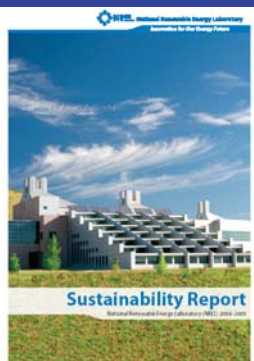
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Click on Headlines to Navigate

In The News

Here's a way for the US to save about a half billion gallons of fuel per year. How about ventilated seats in cars? Fans are imbedded in the seats which remove sweat from the body. When the body is cooler, less air conditioning is needed. NREL is researching ways to more efficiently use air conditioning systems in vehicles, thus reducing fuel use. NREL researchers John Rugh and Jason Lustbader were featured on National Public Radio's "All Things Considered". To hear the whole story, go to <http://www.npr.org/templates/story/story.php?storyId=5280130>. Currently, ventilated seats are only available on high end vehicles but they are expected to be utilized more widely in the future.

2004-2005 NREL Sustainability Report Now Available



The 2004-2005 NREL Sustainability Report is now available online. This report highlights some of the sustainability activities and goals that were accomplished in the past year. The report features different areas of sustainability throughout the Laboratory and includes: water, energy, transportation, facilities, green purchasing, recycling and more. Check it out at <http://www.nrel.gov/docs/gen/fy06/38487.pdf>

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